

WHAT IS CLAIMED IS:

1. A sewing machine, comprising:

a main frame provided with a drive shaft; and

a cutting mechanism mounted on the main frame and including:

a driving device including an actuating member driven by the drive shaft of the main frame;

a first retaining device including a support bracket secured on and spaced from the actuating member, a support rod driven by the actuating member of the driving device and having a first end extended through the actuating member and the support bracket; and

a second retaining device including a lower cutter located opposite to the upper cutter of the first retaining device.

2. The sewing machine in accordance with claim 1, wherein the first retaining device further includes a support bracket secured on and spaced from the actuating member, a support rod driven by the actuating member of the driving device and having a first end extended through the actuating member and the support bracket, an upper cutter mounted on a second end of the support rod to move therewith, a retaining member secured on the first end of the support rod and rested on the support bracket, and a restoring spring mounted on the support rod and urged between the retaining member and the actuating member.

1 3. The sewing machine in accordance with claim 1, wherein the
2 support bracket has an upper end formed with a support hole for mounting the
3 support rod.

4 4. The sewing machine in accordance with claim 2, wherein the
5 support bracket has an upper end formed with two retaining holes, the retaining
6 member has a periphery formed with a retaining hole, and the first retaining
7 device further includes a retaining pin having a first end secured in the
8 retaining hole of the retaining member and a second end secured in one of the
9 two retaining holes of the support bracket.

10 5. The sewing machine in accordance with claim 1, wherein the first
11 end of the support rod is extended through a passage hole of the actuating
12 member.

13 6. The sewing machine in accordance with claim 2, wherein the
14 retaining member of the first retaining device is formed with a central hole for
15 mounting the support rod.

16 7. The sewing machine in accordance with claim 1, wherein the
17 support bracket is substantially L-shaped.

18 8. The sewing machine in accordance with claim 2, wherein the
19 support rod has a second end formed with an enlarged head rested on an upper
20 end of the actuating member for mounting a lower end of the upper cutter.

21 9. The sewing machine in accordance with claim 8, wherein the
22 enlarged head of the support rod of the first retaining device is formed with a

1 positioning recess for positioning the lower end of the upper cutter by an
2 adjusting screw.

3 10. The sewing machine in accordance with claim 9, wherein the
4 lower end of the upper cutter is formed with an oblong adjusting slot for
5 slidably mounting the adjusting screw.

6 11. The sewing machine in accordance with claim 2, wherein the
7 support bracket has a bent end formed with a fixing hole, and the first retaining
8 device further includes a locking screw extended through the fixing hole of the
9 support bracket and screwed into a fixing hole of the actuating member, so that
10 the support bracket is fixed on the actuating member.

11 12. The sewing machine in accordance with claim 2, wherein the first
12 retaining device further includes a follower having a first end pivotally
13 mounted between the support bracket and the actuating member by a
14 positioning shaft, and a second end pivotally mounted on a pivot shaft of the
15 main frame by a fixing member.

16 13. The sewing machine in accordance with claim 12, wherein the
17 support bracket has a lower end formed with a fixing hole, and the positioning
18 shaft has a threaded first end extended through the fixing hole of the support
19 bracket and screwed by two locking nuts.

20 14. The sewing machine in accordance with claim 13, wherein the
21 positioning shaft has a smooth second end extended through the first end of the

1 follower and secured in the positioning hole of the actuating member, so that
2 the follower is pivotally mounted on the positioning shaft.

3 15. A sewing machine, comprising:

4 a main frame provided with a drive shaft; and

5 a cutting mechanism mounted on the main frame and including:

6 a driving device driven by the drive shaft of the main frame;

7 a first retaining device including an upper cutter driven by the
8 driving device; and

9 a second retaining device including a support shaft having a first end
10 extended through a wall of the main frame, a fixing seat having a mediate
11 portion secured on a second end of the support shaft and a lower end mounted
12 on a pivot shaft of the main frame, and a lower cutter secured on an upper end
13 of the fixing seat and located opposite to the upper cutter of the first retaining
14 device.

15 16. The sewing machine in accordance with claim 15, wherein the
16 second retaining device further includes a knob fixed on the first end of the
17 support shaft.

18 17. A sewing machine, comprising:

19 a main frame provided with a drive shaft; and

20 a cutting mechanism mounted on the main frame and including:

21 a driving device driven by the drive shaft of the main frame and
22 including a drive member having an upper end mounted on the drive shaft of

1 the main frame, a first power transmission member having a first section
2 pivotally mounted on a lower end of the drive member and a mediate section
3 pivotally mounted on a pivot axle of the main frame, a link having a first end
4 pivotally mounted on a second section of the first power transmission member,
5 a second power transmission member having a first section pivotally mounted
6 on a second end of the link and a mediate section pivotally mounted on a pivot
7 shaft of the main frame, and an actuating member having a lower end pivotally
8 mounted on a second section of the second power transmission member;

9 a first retaining device including an upper cutter driven by the
10 actuating member of the driving device; and

11 a second retaining device including a lower cutter located opposite to
12 the upper cutter of the first retaining device.

13 18. The sewing machine in accordance with claim 17, wherein the
14 first power transmission member is substantially inverted L-shaped, and the
15 second power transmission member is substantially inverted L-shaped.

16 19. The sewing machine in accordance with claim 17, wherein the
17 fixing member is fixed on the drive shaft of the main frame to rotate therewith,
18 and the drive member is moved on the fixing member to perform a cam
19 movement.

20 20. The sewing machine in accordance with claim 17, wherein the
21 lower end of the actuating member is formed with a pivot hole, and a pivot pin
22 is extended through the second section of the second power transmission

- 1 member and is pivotally mounted in the pivot hole of the lower end of the
- 2 actuating member.
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